HTC Engineering Mobility	Qtek8300/8310 High Tech Computer, Corp.	Feature Sheet Revision v2.04 6/1/2005

Features

Platform
- Bar Type Smart Phone
- OS: Microsoft Windows Mobile Smartphone

Dimension
- 107.54mm(L) x 46.2mm(W) x 17/17.5mm(T)
- Weight
  - ♦ 106 g or less (with battery)

Processor/Chipset
- TI OMAP 850, 200MHz + TI E-Syren

Memory
- Flash ROM: 64/128 MB
- RAM: 64 MB
- Memory meter for showing available space

LCD Module
- 2.2" QVGA, 64K colors TFT LCD
- LED backlight

GSM/GPRS/EDGE Functional Block
- Internal antenna
- Quad-band GSM/GPRS / EDGE module
  - ♦ 900: 880-915, 925-960MHz
  - ♦ 1800: 1710-1785, 1805-1880MHz
  - ♦ 1900: 1850 -1910, 1930-1990MHz
- Auto Band Switching
- Generic GSM service
  - ♦ Call holding, waiting, forwarding
  - ♦ Call barring
  - ♦ CLIP (Calling Line Identity Presentation)
  - ♦ CLIR (Calling Line Identity Restriction)
  - ♦ SMS (Short Message Service)
    - ⇨ SMSMT, SMSMO, SM Reply, SM Replace, SM Acknowledgement, 8 Bits SMS Data
    - ⇨ Long Message (640 Characters)
  - ♦ Display own number, telephone number storage capability in terminal and SIM card
  - ♦ Network selection (3GPP T2 23.122 V 3.6.0)
  - ♦ Cell broadcast
  - ♦ Multi-party capability
  - ♦ Unstructured Supplementary Service Data Phase 1+2
  - ♦ AMR/EFR/FR/HR
  - ♦ Network Lock
  - ♦ CSD (14.4Kbps)
  - ♦ Ciphering A5.1, A5.2
  - ♦ AT Commands (GSM 07.05 and 07.07)
  - ♦ AT Commands Extensions (GPRS/PIM related)
  - ♦ SATK Release 99
  - ♦ CAI (Charge Advise Information)
  - ♦ AOCC (Advice of Charge Charging)
  - ♦ COLP (Connected Line Identity Presentation)
  - ♦ COLR (Connected Line Identity Restriction)
  - ♦ CUG (Closed User Group)
  - ♦ ECT (Explicit Call Transfer)
  - ♦ ALS (Alternative Line Services)
  - ♦ MM (Mobility Management, CS)
  - ♦ Voice Mail Indicator
  - ♦ Advice of Charge Information
- GPRS functionality
  - ♦ GPRS class B
  - ♦ Multi-slot standard class 10
  - ♦ PBCCH
  - ♦ PPP over GPRS
  - ♦ Ciphering: GEA/1 + GEA/2
  - ♦ Coding Schemes: 1,2,3 & 4
  - ♦ Network Operation Mode I, II, III
  - ♦ Medium Access Modes: Dynamic Allocation
  - ♦ PDP Contexts: 2 simultaneous
- PPP based services
- IPV4/IPV6
- EDGE/EGPRS functionality
  - ♦ EDGE class B
  - ♦ Multi-slot standard class 10
  - ♦ Power Classes
    - ⇨ EGSM 900 8-PSK: Class E2
    - ⇨ GSM 1800 8-PSK: Class E2
    - ⇨ GSM 1900 8-PSK: Class E2
  - ♦ EDGE Coding Schemes:
    - ⇨ MCS 1-4 in UL/DL (GMSK)
    - ⇨ MCS 5-9 in UL/DL (8PSK)
  - ♦ Incremental redundancy:
    - ⇨ Selective Type I ARQ and Type II hybrid ARQ
- SIM
  - ♦ 3V SIM operation
  - ♦ SIM application toolkit
  - ♦ Over the air provisioning
  - ♦ Security
    - ⇨ Pin 1 & 2 Control
  - ♦ FDN (Fixed Dialing Number)
  - ♦ SDN (Service Dialing Number)
  - ♦ ADN (Abbreviated Dialing Number)

Keyboard/button/Switch – with Auto Key Lock Option
- One Power button (Wake up key)
- One 5 ways navigation pad
- One Send Button (Wake up key)
  - ♦ Quick Press: Start a phone call
  - ♦ Long Press: Switch On/Off loud speaker during incoming call
- One End button (Wake up key)
  - ♦ Quick Press: End a phone call HTC Confidential P1
  - ♦ Long Press: Switch On/Off Key Lock
- 2 Soft Keys
- One Home/Connection Quick List Button
  - ♦ Quick Press: Home
  - ♦ Long Press (Press and Hold): BT/PDP Quick list
- One Back/Clear Button

- ♦ Text Editing mode: Clear one character (Long press to delete whole text field)
- ♦ Non-Text mode: Back key
- Numerical dialing keypad (12 buttons / Wake up key)
  - ♦ Keypad is labeled as GSM 02.30
- Volume Up Button (Left Upper Side / Wake up Key)
  - ♦ Quick Press: Volume Up
  - ♦ Long Press: Voice Recording
- Volume Down Button (Left Upper Side / Wake up Key)
  - ♦ Quick Press: Volume Down
  - ♦ Long Press: Voice Command
- PoC/ Carrier Define Button (Left Upper Side / Wake up Key)
- Camera capture (Right Upper Side / Wake up Key)

Notification

- One Bi-color LED (Green and Red) for GSM standby, GSM network status, Event Notification, Power Charging status
- Two respective (Blue **[Bluetooth]** and Green **[WiFi]**) LEDs in the same second lens for Bluetooth/WiFi status
- Vibration for notification and incoming call
- Notification by LED, Sound, Message, Vibration Motor

Audio

- Receiver
- Loud Speaker
- Microphone
- Earphone/ microphone jack with stereo sound, 2.5Ø diameter (at the same side of volume keys)
- Audio sampling rate
  - ♦ Decode: 16-bits with 8KHz, 11KHz, 22KHz, 44.1KHz
  - ♦ Encode: 16-bits with 8KHz, 16KHz.
- Audio (record) codec
  - ♦ Encoder: AMR/AAC
  - ♦ Volume Meter: 5 volume levels for tone/voice on all audio devices

Digital Camera

- Image Sensor:
  - ♦ 1.3 Mega Pixels CMOS
- Lighting: Min. 5 Lux
- Resolution: SXGA 1280x1024, VGA 640x480, QVGA 240x320, QQVGA 120x160
- Night Mode
- Preview Mirror

Digital Camcorder Specification

- H.263/MPEG4 encoder and decoder
- QCIF mode
- AMR-NB/WB, AAC audio encoder
- Video Streaming or Off line: 30fps
- Encoding: Min. 6fps

Interface

- 3V SIM card
- One Mini-USB plug (Slave USB, Power In)
- One Infrared IrDA SIR
- One miniSD Card slot
- Stereo audio jack
- External RF connector with cover

Power

- Talk: 5 hours (TBD)
- Standby: 250 hours (TBD)
- Charging: 3 hours
- Battery
  - ♦ Rechargeable battery, Li-Ion 1150 mAh
  - ♦ RTC backup battery - golden capacitor for min.20minutes
  - ♦ Battery Meter Showing available battery
  - ♦ Low Battery Warning
- AC Adapter:
  - ♦ AC input rating: 100 ~ 240 VAC, 50/60Hz
  - ♦ DC output: 5VDC, 1A
- Photon Sensor for LED power consumption saving
- Support USB charging

Device-to-Device Connectivity

- Bluetooth
  - ♦ Compliant with v1.2
  - ♦ Class 2 transmit power
  - ♦ Supported profiles:
    - ⇨ DUN Client Profile
    - ⇨ Generic Access Profile
    - ⇨ Generic Object Exchange Profile
    - ⇨ Hands-free Profile
    - ⇨ Headset Profile
    - ⇨ Object Push Profile
    - ⇨ Serial Port Profile
    - ⇨ ActiveSync
    - ⇨ HID (keyboard, mouse)
- WiFi
  - ♦ IEEE 802.11b
  - ♦ Internal WLAN antenna
  - ♦ 11, 5.5, 2, and 1 Mbps per channel, auto fallback for extended range
  - ♦ ELP mode
  - ♦ Security
    - ⇨ WPA authentication – WEP, PSK, EAP-TLS, PEAP, LEAP
    - ⇨ Signaling interfaces between the terminal device and the servers: mutually authenticated and encrypted utilizing TLS (RFC 2246) with RC4 encryption with SGA1 used as the message integrity check
- Infrared IrDA SIR
- USB 1.1 with mini-USB plug and receptacle

Hanger

- Lanyard support

Accessories

- Bundle
  - ♦ AC adapter w/ DC_IN via mini-USB plug

- ♦ USB Sync. Cable
- ♦ Stereo wired headset with microphone
- ♦ Standard Battery
- ♦ User Manual, Quick Start Guide, & Software CD

- Option
  - ♦ Car adapter
  - ♦ Traveler Charger with backup battery charging slot
  - ♦ Car Kit w/Car Stereo Mute function
  - ♦ Carrying Case

Smartphone 2005 Applications

- Microsoft Pocket Outlook: Inbox, Contacts, Calendar, Tasks
- Microsoft Windows Media Player
- MSN Messenger
- Microsoft Pocket Internet Explorer
- Microsoft ActiveSync
  - ♦ External Sync with Microsoft Exchange Server (OTA Push Service)
  - ♦ OTA provisioning
- Games
- Calculator
- Wireless modem (USB, Bluetooth, IrDA)
- Photo contact/ caller ID
  - ♦ Closed user group
- Audio Recorder: WAV, AMR-NB

Value Added Applications

MASD

- Photo Album with editing picture capability
  - ♦ Image format: JPG, GIF87a, GIF89a, PNG, WBMP
- Vector graphics: SVG-Tiny (MMS & IM)
- Camera capture utility
- Camcorder utility
  - ♦ Frame rate per second
    - ⇨ min 30 fps decoding for QCIF resolution
    - ⇨ 6 fps encoding for QCIF resolution
  - ♦ Recording format
    - ⇨ H.263 + AMR-NB
    - ⇨ MPEG4 + AMR-NB
    - ⇨ Motion-JPEG AVI
- MIDI Engine
  - ♦ 40 polyphonic
  - ♦ Standard MIDI format 0 and 1 (SMF)/ SP MIDI
- Ringtone format
  - ♦ MIDI, MPEG4 or H.263 with AAC and AMR-NB audio codec
  - ♦ WAV, MP3, WMV by WMP
-
- Audio Playback format: AAC, MP3, WMA, WAV, AMR-NB/WB
- Video Playback format: H.263, MPEG4, WMV
- File/Task Manager and Space Maker

MSD

- MMS with Video Clip support
- Video/Audio Streaming (3GPP)
  - ♦ Combined Bit Rate: 32Kbps (streaming)
- Java virtual machine (J2ME, CLDC 1.1, MIDP 2.0)
  - ♦ JSR 185 JTWI
  - ♦ JSR 120
  - ♦ JSR 135
  - ♦ JSR 75
- ClearVue Suite – Power Point, PDF Viewer
- Graphics
  - ♦ Image format: JPG, GIF87a, GIF89a, PNG, WBMP
- TegicT9 predictive text input
- DRM: For all types of files (pictures, audio, application etc.), and also all types of delivery method (MMS, email etc.)
  - ♦ OMA 1.0
  - ♦ Forward lock
  - ♦ Combined delivery
  - ♦ Separate delivery
- Speech Recognition
  - ♦ Voice command/ voice dial

Regulatory

- GSM Type Approval. (GCF/FTA)
- R&TTE: EMC / EMI, Safety SAR
- FCC approval
- PTCRB approval
- Windows Mobile Logo (NSTL)
- USB compliance test
- Bluetooth 1.2 certification